

above the lower border of the trunk and just below a smooth enlarged postclavicular scale. Its rays are nearly uniform in stoutness and articulated only quite at their extremities. The scales seem to have been large, thin, smooth, and deeply overlapping.

In general aspect this imperfect fish is very suggestive of *Syllæmus*, a Clupeoid from the Chalk, both of Europe and of North America; but it differs from the known species of the latter genus in the deeper cleft of its mouth, the shape of its mandible, and the relatively larger size of its maxillary teeth.

The specimen was presented to the British Museum (Natural History) by the Director of the Imperial Institute, during 1905.

XXI.—*New Species of Heterocera from Costa Rica.*—X.
By W. SCHAUS, F.Z.S.

Micrantha mollita, sp. n.

Palpi brown; frons whitish green; vertex and collar buff, shaded with light brown and with a few dark irrorations on collar; thorax mottled buff and white, darkly irrorated in front; abdomen buff-brown, with paler segmental lines. Fore wings: base roseate buff, shading to grey medially and from vein 2 to inner margin terminally; some dark scales at base of inner margin; an indistinct brownish geminate ante-medial line; orbicular and reniform space pale green; a greenish space below orbicular; the costa medially mottled grey and brown; a greyish-brown medial shade, tinged with dull green, expanding below reniform; reniform space followed by a whitish line and by a large brown space to near apex, which is crossed by the fine postmedial outcurved and geminate lunular line, this line being filled in with white on costa; a subterminal line, whitish from costa to vein 5, roseate buff below 5, crossing the brown space near apex, inwardly shaded with green between 7 and 4, and followed by a dark brown spot between 6 and 4; a terminal interrupted black line, inwardly edged with whitish; cilia green. Hind wings fuscous; a terminal black line.

Expanse 22 mm.

Hab. Sixola.

Lithacodia veteriosa, sp. n.

♀. Palpi inwardly buff, outwardly fuscous brown; third joint buff, tinged with fuscous. Fore wings fuscous brown; antemedial buff-brown, heavily edged with black, oblique on costa, inset on subcostal, slightly outcurved below median, and more so below submedian; orbicular a white point edged with black; a medial wavy black line; reniform long, consisting of a brown line on discocellular, inwardly finely edged with white, outwardly broadly edged with white, and surmounted by a buff spot on costa; postmedial from vein 8, fine, black, wavy, followed by a creamy-buff shade and a heavier black line from 8-3; below vein 2 the buff shade is crossed by a fine brown line; a subterminal black shade, heaviest from costa to vein 4, very irregular, and partly shaded outwardly with buff-brown; terminal lunular dark velvety-brown spots between the veins, inwardly edged with pale scales. Hind wings fuscous brown; a terminal lunular fuscous line, edged with whitish scales; whitish streaks on cilia at veins.

Expanse 38 mm.

Hab. Sixola, Banana River.

Lithacodia homopteridia, sp. n.

♀. Palpi brown, irrorated with buff. Head light reddish brown. Collar and thorax dark brown, the scales tipped with lilacine grey. Abdomen dull grey-brown, with dark dorsal tufts at base. Fore wings dark brown, the shadings and lines almost black; a medial and four outer white points on costa; a basal line on costa; a finely dentate antemedial line, velvety black, geminate, most heavily marked on inner margin; an irregular medial shade, followed by a large spot in cell; a white point at origin of vein 3; postmedial geminate, wavyly dentate; a subterminal dark greyish-brown line, faintly lunular, inwardly broadly shaded with fuscous; terminal velvety black lunules, inwardly edged with dark grey-brown, and separated by minute buff points on veins. Hind wings fuscous brown; a whitish-buff spot at anal angle; terminal lunules and points as on fore wings. Underneath lighter fuscous brown, irrorated with lilacine white; a finely lunular postmedial line with whitish streaks on veins; inner margin of fore wings white.

Expanse 32 mm.

Hab. Carillo.

Lithacodia jora, sp. n.

♂. Palpi dark brown, streaked with buff at tip; frons black, vertex white, shaded with greenish buff; collar dark brown, with a few white scales behind; thorax whitish, with a dark brown spot in front, the patagia greenish, slightly tipped with dark brown; abdomen greenish buff, with dark brown transverse shadings and dorsal tufts. Fore wings light olive-green, darker medially below cell; the costa spotted with fuscous brown, and towards apex with white; the basal spot large, extending into cell; a small spot at base of inner margin; medial spot on costa heavily marked, below it the orbicular, which consists of a fuscous-brown point circled with white, and below cell a curved brownish line to inner margin, preceded below cell by a dark brown point; reniform space large, white, containing a fuscous-brown streak; postmedial remote from cell, incurved close to vein 4 to below reniform, slightly outcurved at vein 2, and heavily marked with white; outer margin fuscous brown, interrupted by an olive-green space between 4 and 6, and with some greenish-brown mottlings above tornus; cilia fuscous grey and brown, with fine white streaks at veins 2, 3, 5, 6, and 7; a white streak on costa near apex. Hind wings silky brownish grey.

Expanse 20 mm.

Hab. Juan Vinas.

Eustrotia obliquilinea, sp. n.

Palpi outwardly brown, inwardly buff; head and collar light brown; thorax darker brown, the patagia outwardly streaked with white; abdomen brownish grey. Fore wings dark olive-brown, the inner margin and a shade at and beyond cell light olive-brown; an oblique white line from base of costa to submedian vein; a broad, obliquely curved, white antemedial line to submedian fold at subterminal, shaded between fold and vein 4 by fuscous brown, and divided across cell by a light olive-brown line; a white line medially across cell, angled and following vein 8 to postmedial, which is fine, white, inwardly oblique to vein 5, then nearly obsolescent to submedian fold, limiting beyond cell the light brown shade; the costa postmedially streaked with white; a fuscous subterminal shade incurved to below vein 5, outset from vein 4 to submedian fold; a terminal fuscous line inwardly edged with white; cilia crossed by a whitish line. Hind wings greyish brown.

Expanse 24 mm.

Hab. Avangarez.

Near *E. cnossia*, Druce.

Phobalosis grandimacula, sp. n.

♂. Palpi and frons grey; vertex fuscous brown; iridescent golden scales between antennæ; collar, thorax, and abdomen whitish, thickly covered with fine wavy grey lines; anal hairs fuscous brown. Fore wings whitish, thickly covered with transverse brownish striæ; traces of an antemedial geminate grey line, forming three outward curves; a very large round brown-black spot at and beyond end of cell, followed by a fine dark postmedial line, slightly excurved; a subterminal dentate white line, preceded by a brown shade on costa; an interrupted dark terminal line. Hind wings whitish, suffused with grey; a dark terminal line. Hind wings below with a dark discal point and a postmedial line angled at vein 4.

Expanse 16 mm.

Hab. Tuis, Juan Vinas.

Casandria aræa, sp. n.

♀. Palpi grey; head grey, shaded with light brown laterally and behind, a fuscous line between antennæ; thorax and abdomen grey, somewhat shaded with brown, the last two segments dorsally and laterally brown. Fore wings dark grey; the subterminal area suffused with white; a basal and antemedial excurved brownish shade, the latter followed by a whitish spot in and below cell to submedian, containing a cluster of black scales on fold, and is partly edged below with brownish; an incurved dark grey shade on discocellular, followed by a small white spot; beyond cell a brown line, forming a vague "8." Hind wings silky greyish brown.

Expanse 23 mm.

Hab. Sixola.

Celiptera montana, sp. n.

♂. Body dull brownish grey. Fore wings grey, irrorated with brown; an indistinct basal and subbasal darker grey line; an antemedial straight buff line, outwardly shaded with reddish and then olive-brown, becoming greyer towards costa; a similar line from vein 9 at 2 mm. from apex to inner margin near tornus; the intermediate space crossed by four darker grey and indistinct lines; reniform large, outlined in

greyish buff, preceded by a velvety brown point; a dark point on inner margin before antemedial, not always present; a straight subterminal row of black spots; an irregular row of marginal fuscous points. Hind wings greyish brown, shaded with fuscous beyond a pale straight subterminal line; the termen greyish, with minute black points. Underneath dark greyish brown. Hind wings with long hairs at base and along inner area.

Expanse 42 mm.

The female is browner and without the spot on inner margin.

Hab. Juan Vinas, Tuis, Laguna.

Cœnipeta sublimis, sp. n.

Palpi dark brown, with a fine lateral white line. Head, collar, and thorax dark brown; black shadings on patagia. Abdomen fuscous brown, with paler transverse lines posteriorly on segments. Fore wings dark brown, with fuscous shadings; a basal light brown line, followed by a dark space; an antemedial light brown line, geminate, enclosing a dark triangular spot on costa, diverging and enclosing a dark spot below cell, followed by some lilacine white scales between submedian fold and vein; a vague dark medial line; a buff-brown shade from costa through reniform, which is outlined by a white and yellowish line, wide apart and not meeting behind, the inner portion continuing as a light brown line, outwardly oblique to submedian, where it is angled and joined by a short similar line from near middle of inner margin; the postmedial indistinct, outcurved, and terminating at vein 4, edged with black; the postmedial space below vein 4 clearer brown; a subterminal ochraceous brown line, dentate from vein 8 to near 5, then broader and slightly incurved to inner margin; marginal black spots outwardly shaded with lighter brown; a faint terminal dark line. Hind wings fuscous brown; a wavy light brown postmedial line; a grey-brown subterminal shade, interrupted by a fuscous projecting line on vein 6; terminal white streaks on veins 2, 5, and 6; a terminal black shade with a white point between 6 and 7; three round marginal black spots between 2 and 5. Fore wings below paler; a whitish-buff spot at end of cell; three medial spots on costa at origin of indistinct lines; white and buff mottlings above tornus and below apex; subterminal white near costa. Hind wings below with geminate medial and postmedial dark lines and a black and buff line at

end of cell; a pale subterminal line; a black spot between 6 and 7 with a white point.

Expanse 51 mm.

Hab. Juan Vinas, Tuis.

Stictothripa delaia, sp. n.

♀. Palpi mottled brown and white. Body white; transverse grey shades on abdomen. Fore wings white, irrorated with grey and mottled with pale yellow beyond cell and postmedial line; an indistinct grey basal line; antemedial fine, dark grey, wavy, more deeply outcurved below submedian; a medial fuscous shade on costa to discocellular, which is crossed by a broad velvety fuscous-brown line, obliquely curved to subterminal at vein 2; postmedial fine, black, irregularly outcurved, straight from vein 2 to submedian, on which it is deeply and finely toothed towards base; subterminal fine, greyish brown, followed by a similar terminal spot between 3 and 4, below 3 inbent to vein 2, and then heavily marked velvety fuscous brown, inwardly shaded with light brown to tornus; cilia yellow, shaded with brownish spots and tipped with white. Hind wings white; a curved fuscous line on discocellular, a postmedial punctiform line becoming linear on inner margin; veins and outer margin silvery, the latter broadly shaded with fuscous grey; darker subterminal streaks on veins and a fuscous line from vein 2 to anal angle; a dark terminal line.

Expanse 40 mm.

Hab. Sixola.

Concana lepida, sp. n.

Palpi light brown, spotted with dark brown; a white spot on frons above proboscis, otherwise frons, vertex, collar, and thorax mottled fuscous brown and buff, with some white scales posteriorly on collar and long spatulate scales on thorax; abdomen fuscous grey and brown, with high dorsal tufts. Fore wings buff-brown, crossed by numerous irregular lunular dark brown and black lines; a blue-grey streak on submedian medially and beyond, and an oblique whitish shade above it to vein 2; an excurved white line at end of cell, the veins before it and vein 2 blue-grey; veins 3, 4, 6, and 8 whitish on postmedial area; end of cell and postmedial space between 6 and 8 blue-grey; a whitish shade between 5 and 6; some marginal whitish-buff shadings. Hind wings whitish, thinly scaled with brown; the veins and outer margin dark brown; a subterminal whitish-buff line, interrupted

by the veins; cilia whitish, divided by a brown line. Fore wings below fuscous grey; a black point and white line postmedially on costa; a subterminal irregular white line. Hind wings white; a wavy fuscous medial line; a dentate postmedial line; a heavier fuscous subterminal shade and some marginal shadings.

Expanse 35 mm.

Hab. Juan Vinas.

Concana magnetica, sp. n.

♀. Body dark lilacine brown; a fuscous-brown transverse shade anteriorly on collar, and similar dorsal tufts on first and third segments of abdomen. Fore wings dark lilacine brown, the markings fuscous brown; a basal line with some lilacine blue scales below cell; an antemedial shade outwardly curved from subcostal to submedian, and inwardly shaded with lilacine blue scales; a medial line across discocellular, interrupted between cell and vein 2, outcurved from 2 to submedian, inbent below it, preceded in cell by a curved line and followed beyond cell by a cluster of lilacine scales; postmedial only faintly excurved from costa to vein 2, then parallel with medial line, inwardly shaded with lilacine blue from costa to vein 2; an irregular lilacine-blue subterminal shade, followed by dark brown spots at apex, vein 4, and below vein 3; terminal dark intervenal spots. Hind wings: the base to beyond cell and inner margin white, shot with lilacine blue; the costal and outer margin broadly black-brown; a fine dark line along inner margin; whitish streaks at and above anal angle.

Expanse 35 mm.

Hab. Sixola.

Concana lecta, sp. n.

Palpi reddish brown in front, fuscous behind. Head and collar reddish brown; a fuscous shade posteriorly on collar. Thorax darker reddish brown, the patagia tipped with fuscous. Abdomen fuscous above; a dorsal red-brown tuft on third segment. Fore wings brown, darkest at base and on inner margin medially; some black at base of costa; a tuft of light brown scales on base of submedian; a fuscous geminate antemedial curved line, filled in with light brown and shaded with dark red below cell to near submedian; orbicular large, irregular, lighter brown, edged with whitish buff and a few dark red scales; a fuscous medial line, preceded by a

whitish-grey shade below cell; reniform space to postmedial lighter brown, crossed by vague lilacine and greyish scales; postmedial irregular, whitish buff, preceded by a black shade between 4 and 5 and from vein 2 to inner margin, and is also edged with fuscous and darker brown; veins 3 and 4 whitish; a wavy whitish subterminal line, preceded by a black space on costa and a large spot above vein 4; small terminal lunules inversely placed, their curves suffusing and shaded with golden brown. Hind wings dark brown; a faint discal spot; subterminal shade and terminal line, also a reddish-brown spot at anal angle. Hind wings below whitish, irrorated with light and dark brown; a medial shade before discal point; a postmedial lunular line; a subterminal shade.

Expanse 28 mm.

Hab. Avangarez, Juan Vinas.

Concana intricata, sp. n.

♂. Palpi and head mottled lilacine buff and brown; some white at base of antennæ and close to eyes. Collar light brown, broadly edged behind with dark brown and white. Thorax brown, the patagia shaded with silvery white. Fore wings light silky bronze; the base irrorated with lilacine, leaving a vague basal and subbasal clear line on costa and cell; an antemedial clearer brown shade angled in cell; a parallel median shade angled on median, widest below cell, closely followed by a fine lunular line, these lines indicated by faint silvery scaling between them; some white scaling beyond discocellular anteriorly and at base of veins 3-5; a faint postmedial interrupted line and broad, oblique, darker brown shades to before termen from vein 2 to tornus, from above 5 to vein 2, and from costa to vein 4, also smaller spots from costa to vein 6; terminal intervenal spots; whitish points at tips of veins. Hind wings whitish brown; the veins, a discal spot, and postmedial line darker; the outer margin broadly fuscous brown; a faint submarginal whitish line. Hind wings below whitish, shaded with brown on costa and outer margins; a medial brown line; a dark streak on discocellular; a finely dentate postmedial line, with white streaks on veins 3-8; some white scaling on outer margin.

Expanse 29 mm.

♀. More mottled with white; an oblique white line beyond cell, followed by a velvety fuscous-brown shade

between 4 and 6, interrupting a subterminal white line at vein 5; a wavy marginal white line.

Expanse 27 mm.

Hab. Avangarez, Tuis, Sixola.

Dyops? telharsa, sp. n.

♂. Frons and a spot between antennæ reddish brown; head otherwise and collar whitish buff, mottled with brown. Thorax silvery white, with a few brown irrorations; a dark brown medial spot and dark tips to tufts behind. Abdomen white, irrorated with brown; anal hairs and small dorsal tufts dark brown. Fore wings silky brown, with darker brown medial, postmedial, and subterminal shadings; antemedial finely dentate, inbent from subcostal to submedian, crossing the inner edge of a narrow white fascia; a white streak medially along inner margin; an oblique white line from reniform to vein 2 and some white scaling on inner margin on either side of postmedial. Hind wings fuscous brown; a finely dentate postmedial darker line, preceded and followed towards inner margin by a buff-brown shade.

Expanse 33 mm.

Hab. Esperanza.

Dyops? telmela, sp. n.

Head and thorax buff; collar and patagia shaded with grey and dark brown. Abdomen buff-brown, with paler segmental lines and some dark brown dorsally. Fore wings brownish grey; the costa mottled with white and light brown; an indistinct basal line; the antemedial fine, oblique from costa, inset in cell, and below median edging a broad transverse dark olive-brown fascia, which is also crossed by a black shade; postmedial remote, oblique from vein 8-6, incurved between 6 and 4, heavily marked, velvety black, fine and inbent to vein 2 and medial fascia, which it edges, to inner margin, and is again heavily marked; reniform pale brown, incurved; a subterminal buff line, wavy near costa, where it is preceded by a dark brown spot, dentate, lunular below vein 4; an oblique brown shade from postmedial to termen at vein 4; a terminal dark line connecting intervenal spots. Hind wings brown; a darker shade on discocellular; a terminal darker brown line preceded by some whitish-grey scaling; a pale spot above anal angle, surmounted by a dark point.

Expanse 31 mm.

Hab. La Florida.

Arugisa oppressa, sp. n.

♀. Head and thorax dark brown, tinged with blue-black. Abdomen fuscous brown. Fore wings to postmedial line bluish black, tinged with brown; a fine velvety antemedial line, faintly irrorated with grey; a velvety black point as orbicular; a velvety fine black line on discocellular; postmedial fine, blackish, slightly irrorated with grey, with rounded projections above veins 2, 3, 4, 6, and 7; outer margin broadly brown, with an irregular subterminal darker shade and terminal dark brown points between the veins. Hind wings fuscous brown.

Expanse 25 mm.

Hab. Sixola.

Baniana pastoria, sp. n.

♂. Palpi and collar ochreous brown, the latter in front dark reddish brown; head buff, dark reddish brown close to collar; thorax and abdomen buff, with a few dark irrorations; a dark reddish-brown transverse line close to collar and black segmental lines on abdomen. Fore wings buff, irrorated and shaded with dark olive-brown, chiefly along costa and beyond lines which are rather broad, clear buff; the antemedial somewhat oblique, the postmedial slightly sinuous; the dark subterminal shade inwardly edged with buff, inset and outwardly oblique from 6-3, and again from 3 to tornus; marginal black points between the veins; cilia dark olive-brown; two black points on discocellular. Hind wings buff, with a few dark irrorations on outer margin and some brownish hairs on inner margin; terminal black points between the veins; cilia buff; the black discal spot and postmedial punctiform line of underside faintly visible.

Expanse 31 mm.

Hab. Juan Vinas.

Baniana strigata, sp. n.

♂. Palpi light brown. Head and collar olive-buff. Thorax and abdomen buff, with dark irrorations. Legs buff; the tarsi streaked and circled with black. Fore wings brownish buff, crossed by numerous close-set brown lines, rather darker subterminally, and crossed by a sinuous brown shade from vein 6 to apex; an antemedial and a postmedial dark spot on costa; two black points on discocellular; marginal small black spots between the veins; cilia buff just below apex and at tornus, otherwise dark brown. Hind

wings yellowish buff; a black discal spot; brownish hairs on inner margin; a terminal black line interrupted by veins. Underneath yellowish, with darker irrorations, the inner margins clear paler yellowish; fore wings with a black line on discocellular and a curved dentate black line from vein 5 to costa; hind wings with a black discal spot and postmedial line; terminal black spots on both wings.

Expanse 31 mm.

Hab. Sixola, El Sitio.

Tyrissa perstrigata, sp. n.

Palpi dark brown. Frons white. Vertex and collar lilacine white, irrorated with brown, the collar edged behind with brown. Thorax and abdomen darker grey, the former irrorated with pale grey. Fore wings dark brown, the base with outcurved fine grey lines partly coalescing; some grey in cell and a black point as orbicular; two brownish spots on discocellular; a postmedial lighter brown line, outbent along costa, lunular to vein 4, partly shaded with fine short transverse whitish lines, very oblique from vein 4 to inner margin, and preceded below 5 by four fine greyish lines and above 5 by a broader greyish shade; subterminal line like postmedial, preceded and followed by grey; a terminal black line; extreme costa spotted with buff and white; the outer margin produced at apex and vein 4, crenulate and very oblique below 4. Hind wings dark brown, the medial area crossed by seven fine greyish lines; the postmedial finely lunular, lighter brown, spotted with white outwardly and followed by a grey line; the subterminal preceded and followed by greyish lines from vein 5 to inner margins. Underneath dark brown; the medial area crossed by fine lilacine-blue lines; fore wings with a white postmedial spot on costa and a bluish-white streak towards apex; the costa narrowly ochreous buff.

Expanse 30 mm.

Hab. Guapiles, Tuis, Juan Viñas.

Near *T. laminata*, Butl.

Rhosologia atomosa, sp. n.

♂. Head, collar, and thorax olive-grey; a central black line on vertex and collar; palpi laterally and below black. Abdomen grey, irrorated with black and clothed with brown hairs. Fore wings olive-grey, irrorated rather thinly with black scales and faint dark striae; a black point at base of cell; a faint dusky antemedial shade, angled on costa, and with a small cluster of black scales below submedian fold;

orbicular a black point; reniform large, reddish brown, crossed by a fuscous line, preceded by a black line anteriorly in cell, suffusing with a velvety black spot below vein 5, and connected with costa by a fine angled black line; a fuscous-brown shade from apex, inbent at vein 6, outcurved and less distinct below 5; terminal black points. Hind wings light brown at base, shading to fuscous on outer margin; the veins fuscous on outer half; minute terminal black points; cilia golden yellow.

Expanse 43 mm.

Hab. Juan Vinas.

Allied to *R. pallida*, Schs., and *R. sabata*, Druce.

Rhosologia pallida, sp. n.

♂. Head, collar, and thorax yellowish buff, the palpi laterally black. Abdomen above buff, shaded with reddish brown, laterally thinly irrorated with black. Fore wings yellowish buff, with some scattered brown striæ; a light brown point as orbicular; reniform large, diffuse, mottled dark grey and brown; an elongated velvety black spot at cell below vein 5; a faint brownish angled shade from costa to reniform; a vague subterminal shade irrorated with ochreous, beyond which the margin is faintly darker; terminal dark points between the veins. Hind wings thinly irrorated with fuscous; the veins slightly brown; terminal black points larger than on fore wings; cilia yellowish buff.

Expanse 39 mm.

Hab. Juan Vinas.

Herminodes juvenis, sp. n.

♂. Palpi dark brown, streaked with white above. Head, collar, thorax, and fore wings whitish, thinly irrorated with dark brown. Abdomen buff-brown. Fore wings: no orbicular; reniform faintly outlined by brown scales; a post-medial series of small clusters of brown scales, connected on costa and inner margin; a subterminal lunular dentate line, very fine and indistinct; outer margin suffused with brown; fuscous-brown terminal spots. Hind wings pale buff, irrorated with brown on outer half; a terminal fuscous line, interrupted by veins.

Expanse 25 mm.

Hab. Tuis.

Herminodes subclara, sp. n.

Palpi dark olive-brown, fringed above with whitish.

Head, collar, and thorax buff-white, streaked with fine light brown hairs. Abdomen faintly tinged with grey. Fore wings whitish buff, thinly irrorated with olive-brown scales; a velvety black spot at base of cell; a slightly larger similar spot as orbicular; reniform similar in colour, more elongated, oblique, slightly excised on its outer side; a velvety streak below cell, extending partly into it, and almost connecting the two spots; a postmedial and a subterminal dark lunular dentate line, very indistinct; a lunular dark terminal line, interrupted by veins and outwardly edged with creamy buff; cilia with dark greyish-brown shades at ends of veins. Hind wings pale buff, irrorated with fuscous grey; a faint dark shade on discocellular. Underneath whitish buff, indistinctly shaded with darker scales, and no discal spots, only a black point as orbicular on fore wings.

Expanse 40 mm.

Hab. Tuis, Guapiles, Juan Vinas.

Allied to *H. concatinalis*, Wlk.

Herminodes valida, sp. n.

Palpi black, fringed above with pale buff. Head and thorax pale buff. Abdomen pale buff. Fore wings pale buff, thinly irrorated with black scales; a velvety black point at base of cell; antemedial ochreous points on median and submedian; a minute ochreous point as orbicular; reniform a small ochreous lunule, irrorated with black; a postmedial row of ochreous and black clusters of scales, very small; a subterminal row of ochreous and black lunular dentate marks, slightly larger than postmedial spots; a marginal row of black inter-venal points. Hind wings fuscous grey; the cilia ochreous buff, extending on terminal area. Fore wings below fuscous grey; hind wings buff, thickly irrorated with fuscous; small black spots on discocellular; a terminal black line; a post-medial darker interrupted shade; cilia ochreous buff, with clusters of dark scales at veins.

Expanse 45 mm.

Hab. Sixola, Banana River.

Herminodes madrina, sp. n.

♂. Palpi outwardly fuscous brown, interiorly and tips pale buff. Head and thorax creamy buff. Abdomen greyish buff. Fore wings creamy buff, thinly irrorated with dark brown scales; a black point at base of cell; a dark point as orbicular; reniform large, fuscous grey spotted with ochreous, inwardly edged by a lunular fuscous-brown line; a post-

medial and a subterminal row of small dentate dark brown spots; a terminal row of fuscous-brown points between the veins. Hind wings creamy buff, thickly overlaid with fuscous scales; cilia creamy buff. Underneath thinly irrorated with fuscous scales; fuscous spots on discocellular.

Expanse 43 mm.

Hab. Sixola, Esperanza.

Allied to *H. discata*, Schs.

Herminodes ? venosa, sp. n.

♂. Palpi reddish brown laterally and below, buff above, spotted with brown; fringe in front very long. Head and collar buff-white; a central fuscous line. Thorax buff-brown. Abdomen fuscous brown above, underneath and anal hairs buff-white. Fore wings brown, shaded with buff below costa and on outer margin; veins buff; an antemedial black point below cell; orbicular a black point, followed by a darker shade to reniform, which consists of a buff spot; a postmedial dark curved line cut by veins into small spots; an indistinct subterminal black shade, partly shaded outwardly with buff; terminal black points between the veins. Hind wings fuscous; the cilia tipped with buff. Underneath brownish buff, the disc of fore wings shaded with fuscous; hind wings with a black discal spot, a postmedial fuscous shade, and an interrupted terminal black line. Fore legs with long tufts of black hairs.

Expanse 31 mm.

Female: the fore wings buff, irrorated with brown, otherwise the markings are as in the male.

Expanse 35 mm.

Hab. Sixola River.

Orsa uzza, sp. n.

♂. Palpi dark grey-brown, mottled in front with buff, the segments tipped with buff. Head and collar brown, the frons mottled with yellowish white. Thorax dark steel-grey. Abdomen above dark brown, at base followed by steel-grey, the two last segments buff, crossed by fine wavy light and fuscous-brown lines, the anal hairs whitish buff. Fore wings dark steel-grey tinged with brown; the costa finely buff to postmedial line, then spotted with white; an antemedial and a medial fine wavy dark brown line; a black point as orbicular; an interrupted black line on discocellular, edged with lighter grey; postmedial fine, dark brown,

slightly outcurved and wavy from costa to vein 4, and outwardly shaded with dull dark brown; an irregular and indistinct dark subterminal shade with lighter grey points between the veins; a terminal black line; cilia black, tipped with white near apex and from vein 3 to tornus, and shaded with ochreous brown basally above tornus. Hind wings dark steel-grey; a black medial line followed by a broad light brown space, not reaching inner margin and containing a black point on discocellular behind; a straight postmedial line, paler steel-grey edged on either side with dark brown; a terminal black line; base of cilia ochreous brown, followed by fuscous and tipped with whitish. Wings below whitish, crossed by numerous black striæ, and wavy medial and postmedial black lines, the disc of fore wings strongly shaded with brown; a black shade connecting the lines below cell, and the terminal area below apex shaded with black; hind wings with the outer margin broadly black, on which are some subterminal pale spots.

Expanse 33 mm.

Hab. La Florida.

Thermesia ? subdentata, sp. n.

Palpi orange, shaded with fuscous brown laterally; frons reddish irrorated with lilacine; vertex and collar velvety brown-black; thorax greyish brown irrorated with lilacine; abdomen dark grey. Fore wings yellowish buff striated with dark grey; a dark shade at base irrorated with lilacine, expanding below cell and there limited by an inwardly oblique fuscous line, which is outbent below submedian; an antemedial dark brown line on costa; a medial irregular transverse olive-brown shade preceded by some reddish irrorations in and below cell; reniform much constricted anteriorly, its edge preceded by a velvety brown-black line; postmedial dark olive-brown, outbent from costa, followed by a lilacine line from vein 8, and another brownish line from vein 6, from which point it is inwardly oblique and slightly sinuous; a broad lilacine shade follows from vein 4 to inner margin; the terminal area more heavily striated, and an irregular row of black subterminal spots; base of cilia reddish brown. Hind wings grey-brown tinged with olive; a postmedial black line, expanding on inner margin and there geminate; cilia dark brown, with a reddish line at base, and tipped with lilacine scales. Fore wings below dull greyish brown, the costa shaded with ochreous; a white point on discocellular closely followed by a dentate fuscous

line. Hind wings below paler, irrorated with dark brown and lilacine; a velvety black spot on discocellular edged with white, followed by a very deeply dentate fuscous-brown line; marginal white points between the veins.

Expanse 44 mm.

Hab. Poas.

Bendis ?siaha, sp. n.

♀. Head, collar, and thorax dark brown; a white line between antennæ curved towards frons; the shaft of antennæ spotted with white. Abdomen grey-brown, a transverse fuscous-brown streak at base. Fore wings brown tinged with lilacine; the base darker, becoming black-brown towards antemedial, which is oblique from costa, angled below cell and inwardly sinuous to inner margin; the antemedial on costa, and a fuscous basal line on costa, finely edged with whitish; a whitish medial and a similar postmedial line on costa, the latter continuing as a fine and indistinct greyish-brown line angled beyond cell; a fine buff streak on discocellular; the postmedial followed by a brown outcurved and sinuous line, edged with white on costa, then with buff and light brown to vein 6, and below 6 to inner margin with black-brown; a subterminal buff-brown line incurved before apex, inwardly shaded with black-brown and followed by a dark grey shade and black-brown spot, dentately inbent to vein 6, outbent to termen between 4 and 3, and incurved to tornus; below vein 6 the subterminal is preceded by a dark grey-brown shade; a terminal buff line. Hind wings brown faintly shaded with violaceous; a medial, postmedial, and terminal buff line; a very faint subterminal lunular line; a minute white streak on discocellular. Wings below brown; wavy medial and postmedial white lines; marginal white shadings, and white streaks on discocellulars.

Expanse 28 mm.

Hab. Avangarez.

Allied to *Bendis mascara*, Schs.

Isogona bilinea, sp. n.

♀. Palpi, head, and collar olive-brown; thorax and patagia lilacine brown; abdomen fuscous grey. Fore wings chiefly greyish brown, thinly irrorated with black; antemedial line angled on extreme costa, nearly straight to inner margin, roseate, inwardly shaded with olive-brown; a black point as orbicular; reniform large, pale olive-brown finely outlined with black; postmedial line remote, finely angled

on extreme costa and straight to inner margin near tornus, olive-brown, divided by a slightly paler line, and followed by a roseate shade; outer margin shaded with olive-brown; subterminal small black spots, some of them shaded with white; a terminal dark brown line; cilia dark grey with a pale line at base. Hind wings fuscous brown; a postmedial fine dark line, curved near tornus.

Expanse 34 mm.

Hab. Juan Vinas.

Oroscopta delicata, sp. n.

♂. Palpi brown and black, the third joint buff, broadly circled with black. Body yellowish buff. Fore wings buff tinged with brown, chiefly on costa; some scattered black scales at base; a greyish spot at end of cell; a fuscous antemedial and postmedial shade on costa, the latter followed by a fine line, outcurved from costa and incurved between 7 and 4, very oblique inwardly from 4 to inner margin before middle, brownish, outwardly shaded with whitish buff and preceded from vein 4 to inner margin by three fine whitish-buff lines; a dark brown streak on inner margin beyond middle, followed by a brown spot crossed by a transverse whitish line; the outer margin shaded with brown between 5 and 8; terminal dark brown spots preceded by whitish streaks. Hind wings buff, crossed medially by numerous fine darker lines; a dark brown spot on costa before apex; a transverse dark brown line from near apex to anal angle, followed by a lighter brown line and some greyish striæ; an interrupted dark terminal line. Hind wings below with the outer margins broadly shaded with fuscous grey.

Expanse 24 mm.

Hab. Guapiles.

Oroscopta calverti, sp. n.

♀. Palpi buff, transversely streaked with brown. Head, collar, and thorax whitish buff, the collar anteriorly shaded with dark brown. Abdomen buff, dorsally shaded with fuscous brown; lateral and sublateral black spots. Fore wings buff, crossed by fine greyish-brown striæ; a curved and indistinct greyish antemedial shade; a greyish spot on discocellular, crossed by a curved black line; an oblique brown postmedial line on costa, followed by an evenly curved row of somewhat lunular fuscous-brown spots from costa to inner margin; a subterminal heavy rich brown line straight from below costa to below vein 5, then slightly outcurved

and faintly marked, indented and again heavily marked on inner margin, and followed by a pale line and then partly with fuscous; the margin shaded with grey; terminal brown-black spots between the veins preceded by whitish streaks. Hind wings buff, crossed by pale brownish lines; a semilunar fuscous-brown line on discocellular coalescing with a small spot; a postmedial row of fuscous-brown spots, the largest on costa and connected by a whitish-buff dentate line; a subterminal dark brown line; outer margin as on fore wings. Fore wings below brownish, the outer margin shaded with grey; a subbasal and wavy medial fuscous line inversely oblique; a black point in cell; the discal spot followed by a short whitish streak; a postmedial row of fuscous spots, the spot between 5 and 6 inset; subterminal darker brown spots. Hind wings below buff, irrorated thinly with black; outer margin like fore wings; an antemedial wavy black line; a round black spot cut by pale discocellular; an irregular postmedial row of black spots; a subterminal brownish line.

Expanse 35 mm.

Hab. Juan Vinas.

Named after Prof. P. P. Calvert, to whom I am indebted for a specimen.

Oroscopta hacupha, sp. n.

♀. Palpi and abdomen buff-brown, irrorated with dark brown and black. Head and thorax clear buff-brown. Collar dark brown, pale shaded behind. Wings buff-brown, irrorated with a few dark scales. Fore wings: the costal margin crossed by greyish striæ; a fine brownish antemedial curved line; a fuscous spot at end of cell containing some grey scales; an irregularly outcurved brownish line, very oblique from vein 4 to inner margin, followed by five fine brownish lines, chiefly noticeable on inner margin; traces of a subterminal darker line, much interrupted; some slightly darker terminal shadings from below 5 to 6 and at tornus; terminal dark points between the veins. Hind wings: eight transverse brownish lines, darkest medially, almost obsolete near subterminal, which is reddish brown, interrupted before costa, and followed by a fuscous-grey shade; a row of small postmedial black spots, the one near costa larger and triangular. Wings below buff, shaded and irrorated with brown; irregular fuscous medial and postmedial lines.

Expanse 36 mm.

Hab. Sixola.

Capnodes rubrifusca, sp. n.

♂. Head and collar red tinged with ochreous; thorax and dorsal tufts on abdomen darker red, the abdomen otherwise dark greyish brown above with luteous anal hairs. Wings dark brownish red; a postmedial blackish line, slightly oblique. Fore wings: a fine straight blackish antemedial line; a small dark spot in cell; a dark line on discocellular; a darker red irregular subterminal line, indented at veins 6 and 2. Hind wings: the costal margin shaded with black.

Expanse 40 mm.

Hab. Juan Vinas, Sixola.

Capnodes pleione, sp. n.

♀. Head and collar dark brown; patagia and abdomen fuscous brown. Wings dark brown faintly tinged with purplish. Fore wings: a fine brown antemedial line with white points on veins, and followed by a fuscous shade, darkest in cell; a medial fuscous shade darkest in cell; a fine fuscous line on discocellular; a fine postmedial line with white points on veins, starting from a large costal spot, inwardly white, outwardly ochreous, and partly filled in with brown; subterminal black points between the veins; a terminal black line. Hind wings: a fuscous medial and postmedial shade, the latter with minute whitish points on veins; subterminal black points between the veins.

Expanse 33 mm.

Hab. Juan Vinas.

Near *C. sterope*, Cr., but darker than that species.

Capnodes addana, sp. n.

♂. Body and wings dull dark brown. Fore wings: the lines fine, darker brown; the antemedial straight, finely wavy, faintly edged with ochreous brown; the postmedial slightly outcurved, finely wavy, outwardly edged with ochreous brown from vein 7-2; a black point at base of subcostal; reniform indistinct, rather darker; small clusters of black scales subterminally between veins; terminal black points between veins connected by a fine dark line. Hind wings: two black points on discocellular; a finely wavy postmedial line outwardly edged with ochreous brown; subterminal spots and terminal points as on fore wings.

Expanse 28 mm.

Hab. Juan Vinas.

Capnodes peruda, sp. n.

♀. Body and wings brown. Fore wings faintly tinged with lilacine; an antemedial and a postmedial white spot on costa from which the lines start, both lighter brown and darkly edged towards medial space; the antemedial slightly inbent, the postmedial outcurved beyond cell; reniform large, a brighter brown darkly edged; faint subterminal greyish spots; a fine dark crenulate line, punctiform between the veins. Hind wings thinly irrorated with black; a postmedial line as on fore wings; the subterminal spots more distinct.

Expanse 23 mm.

Hab. Juan Vinas.

Capnodes? chephira, sp. n.

♂. Head and collar light brown. Thorax and dorsal tufts on abdomen reddish brown; abdomen otherwise fuscous brown. Wings dark reddish brown. Fore wings: costa shaded with light reddish brown; a white spot at base below cell and at apex; a large medial white space below subcostal where it is widest, its inner edge straight, rounded above submedian and oblique towards apex, containing a dark brown streak on discocellular and a spot in cell, into which the white projects on basal side; a medial small white streak on inner margin and on costa; small subterminal white spots below apical spot and near tornus. Hind wings: a small white spot at end of cell; a row of subterminal white spots followed by larger spots between 4 and 7 and at anal angle; cilia on both wings black, with small white spots.

Expanse 25 mm.

Hab. Sixola, Tuis, Juan Vinas.

Exua barzillai, sp. n.

♂. Palpi, head, collar, and thorax brown, the patagia faintly tinged with lilacine; abdomen above fuscous brown, with light brown transverse shades. Fore wings: the basal third brown limited by a straight antemedial line, darker brown outwardly edged with dull roseate, a black point at base of cell; medial space light brown tinged with grey near antemedial line, and with darker brown near postmedial from below reniform to inner margin; reniform large, outlined in buff and dull roseate; postmedial line angled at vein 6, fine, buff, inwardly edged with dark brown; outer space light

brown tinged with grey and irrorated with black; subterminal black spots between veins, partly shaded with white; a fuscous shade near tornus; a terminal buff line preceded by a faint dark brown shade; cilia fuscous. Hind wings fuscous brown; an indistinct buff straight medial line.

Expanse 28 mm.

Hab. Juan Vinas, Tuis.

Obroatis vinea, sp. n.

♂. Head, collar, and thorax dark reddish brown, the palpi tipped with brown; abdomen lilacine brown, with dorsal reddish tufts. Fore wings dark reddish brown, limited by a nearly straight fuscous line beyond cell, broadly shaded beyond with lilacine, which is crossed by a fine, outwardly lunular, postmedial reddish-brown line; the extreme costa light reddish brown, and below it some lilacine irrorations; traces of a fine darker antemedial line; orbicular a dark brown point; reniform ochreous buff edged with dark red, its margin inbent or consisting of two round superposed spots; indistinct fuscous-grey subterminal points; the termen shaded with dark reddish brown; a pale line at base of cilia. Hind wings dark reddish brown to a fine fuscous medial line, which does not reach costa; costal margin luteous; postmedial line less distinct than on fore wings; outer space tinged with lilacine, only the extreme outer margin reddish brown.

Expanse 43 mm.

Hab. El Sitio, Juan Vinas.

Ephyrodes repandens, sp. n.

Head, collar, and thorax reddish brown. Abdomen greyish shaded with brown at base, thinly irrorated with black. Fore wings greyish brown, thinly irrorated with black; a fine black antemedial wavy line, deeply inbent in cell; orbicular a small round black spot containing a white point; a narrow black medial shade oblique to reniform, inset and wavy below it; reniform consisting of two small black spots separated by a black line, all on an ochreous shade, with a black point above it and three black points in a curve below it; postmedial fine, reddish brown, partly irrorated with white, angled at vein 7, and obliquely irregular to inner margin; subterminal clusters of reddish-brown and white scales at angles of a faint reddish-brown shade, becoming darker at costa; terminal dark points connected by

a fine outwardly lunular black line. Hind wings greyer in tone, the costa whitish; a black medial line adjoining a white discal spot finely edged with black and containing a black point and some reddish lines; a straight postmedial black line; subterminal reddish-brown spots partly connected; the termen shaded with lilacine white on which are black points connected by a fine line.

Expanse 40 mm.

Hab. Juan Vinas.

This species is widely distributed and is the *E. implens* of the 'Biologia' (nec Walker).

Orthogramma terranea, sp. n.

Head, collar, and thorax brown, the collar darkest, tipped with buff posteriorly; abdomen grey, thickly irrorated with fuscous overlaid with brown hairs; the basal segment lighter. Wings brown, the veins paler. Fore wings: an antemedial inwardly oblique dark brown line, inwardly edged from subcostal to inner margin with lilacine white; orbicular extending across cell; reniform still larger, its outer margin incurved, both duller brown, outlined in dark brown outwardly edged with buff-brown; a postmedial pale line from costa, angled at vein 7, inwardly oblique to inner margin, preceded by a fine olive-brown line, and followed by a reddish-brown line outwardly edged with olive-brown, and which continues above vein 7 to apex, where it is preceded by a white line; subterminal white points shaded on either side with dark brown; a terminal dark line, punctiform in middle of interspaces; cilia ochreous brown crossed by a fuscous line. Hind wings: a dark brown discal point; a postmedial line similar to line on fore wings, also similar subterminal points and terminal line.

Expanse 45 mm.

Hab. Juan Vinas.

Focilla invidiosa, sp. n.

♂. Palpi brown irrorated with white, inwardly streaked with white. Head dark lilacine brown. Collar and thorax lilacine brown thinly irrorated with white. Abdomen above dull dark grey-brown. Wings lilacine brown. Fore wings: the basal third thinly irrorated with white; a curved basal white line on costa enclosing a brown point; a dark brown antemedial line inwardly edged with white scales, curved on costa, interrupted in cell, where it is replaced by the orbicular, a dark point, inwardly oblique from median to submedian,

where it is sharply outbent and angled below submedian; a dark medial line inwardly oblique, angled and inset on submedian; reniform large, buff-grey, with a darker line on discocellular; postmedial fine, black, indistinct, dentate, preceded by a large black spot at submedian; a geminate subterminal lunular line reddish brown and fuscous; a terminal lighter brown shade between 4 and 6; apex shaded with fuscous grey; marginal black points between the veins. Hind wings: the costa shaded with ochreous; fuscous hairs at base and on inner area; a heavy black medial line; an irregular black postmedial line; the subterminal geminate, coarsely dentate. Wings underneath buff-brown, finely irrorated with black; black discal points; a medial black line, obsolescent on clear yellowish inner margin of fore wings; postmedial very fine and indistinct; subterminal geminate, sinuous; the costa of fore wings shaded with white.

Expanse 50 mm.

Hab. Juan Vinas, Tuis.

Glenoptera ornata, sp. n

Palpi fuscous above, light brown below. Head and collar olive-buff. Thorax dark green. Abdomen black above, yellowish underneath. Fore wings green, darkest from base to medial line; the lines black, widest on costa; a basal line across costa and cell; a streak on inner margin at base; antemedial line slightly oblique to median, outbent to submedian fold, then straight to inner margin, preceded by an olive-green shade; medial oblique from costa to vein 4, where it projects, straight to fold, expanding along it, and inwardly almost touching the antemedial, which it follows to inner margin, and is also preceded, except on costa, by an olive-green shade; postmedial evenly outcurved, followed by a fuscous spot on costa and on inner margin; subterminal straight from costa to vein 6, inbent and angled close to 5, then outbent and along vein 4 to termen; a fuscous shade at tornus. Hind wings black; the apex broadly bright yellow. Underneath brown-black; a broad yellow postmedial fascia on fore wings and some yellow at apex; hind wings with a geminate medial black line, diverging towards inner margin; the apex broadly yellow.

Expanse 50 mm.

Hab. Tuis.

Torone notabilis, sp. n.

♀. Palpi white below, dark brown above. Head and body above dark lilacine brown. Thorax below white. Abdomen below crimson, ventrally shaded with yellowish white towards base. Fore wings lilacine brown, the veins with darker points; a fine dark brown antemedial line, out-curved on costa, incurved, oblique, to middle of inner margin; a dark brown medial spot on costa and a fine fuscous line across discocellular and straight to inner margin, preceded by a broad dark brown shade from vein 3 to inner margin and followed by a similar shade containing some whitish scales on inner margin, and extending above vein 3 towards apex, not quite joining a dark brown oblique shade from costa to outer margin; a terminal lilacine line from vein 3 to tornus, preceded by a dark brown shade. Hind wings: the base and inner area dark brown; a black fascia on discocellular and a crimson spot beyond it from veins 4-7, its inner edge straight, its outer edge rounded; a broad black shade from apex to inner margin near angle, leaving the outer margin from vein 6 to anal angle broadly crimson. Fore wings below yellowish; a black shade across end of cell, expanding outwardly at vein 3, and reaching submedian; a large yellow spot beyond cell followed by black spots from 7-3, divided by crimson streaks; the costa shaded with crimson from beyond middle to near apex; some terminal fuscous-grey shading. Hind wings below crimson, with darker spots on veins; a broad marginal yellow shade from vein 6 to anal angle.

Expanse 40 mm.

Hab. Tuis.

XXII.—*Some new Algerian Lepidoptera.*
By the Hon. WALTER ROTHSCILD, Ph.D.

Family Noctuidæ.

1. *Eublemma faroulti*, sp. n.

♂. Legs and palpi very pale wood-brown; antennæ white, with brown pectinations; head and thorax white; abdomen creamy white. Fore wing creamy white, an interrupted orange-brown transverse band one-fourth from base, a